

REMARKS

Reconsideration of all grounds of objection and rejection, and allowance of the pending claims are respectfully requested in view of the above amendments and the following remarks. Claims 1-4 and 6-26, as amended, remain pending herein. Claim 5 has previously been canceled without prejudice or disclaimer.

Claims 1 and 16 have been amended to particularly point out that the cladding extends over at least a portion of the support element to the cathode blade and that the cladding extends downwardly from the support part way down both faces of the cathode blade. Support for this amendment can be found in Figures 2 and 3 where the cladding 24 extends downward from the support 22 to both faces of the cathode blade 20.

At the outset, Applicants note with appreciation the indication in the Office Action that claims 3, 7-9, 11, 12, 17, 20-22, and 24 recite allowable subject matter. Claim 3 has been rewritten in independent form.

I. Rejections under 35 U.S.C. §102 (b)

Claims 1, 2, 4, 6, 10, 13-16, 18, 19, 23, 25, and 26 stand rejected under 35 U.S.C. §102 (b) as being anticipated by Borst et al (4882027). Applicants respectfully traverse this ground of rejection for the reasons indicated below.

The Office Action asserts Borst et al discloses a cathode hangar for electro-refining or electro-winning of copper, wherein the cathode comprises a steel hanger bar having a copper cladding and a flat stainless steel starter sheet with a plurality of lugs formed along its upper edge secured to the hanger bar. The lugs of the stainless steel starter sheet are bent, in opposite

directions to abut and engage the side faces of the copper-clad hanger bar and are welded to the copper cladding (Abstract). The stainless steel cathode comprises a hanger bar 10 having a mild steel core 12 with a copper cladding 14 tightly enveloping or bonded to core 12 from one end of the bar to the other. Col. 2, lines 45-51. An austenitic stainless steel plate or starter sheet 16 has a plurality of opposing bent lugs 18, 20 formed along its upper edge initially diverging upwardly and outwardly at 22, 24 and then extending parallel to the plane of the sheet 16 close to or abutting side faces 26, 28 of copper clad hanger bar 10 therebetween. Col. 2, lines 52-58. Stainless steel strips 70 and 72 are explosion bonded to the side faces 26, 28 of the hanger bar to provide good electrical and mechanical contact therewith and to facilitate welding of the lugs to the hanger bar by welds. Col. 3, lines 33-38.

The Office action asserts, since the hanger bar is completely coated with an electrically conductive metal cladding of copper, the metal extends over at least a portion of the support element. Also, since the cathode starter sheet is a complete structure with the lugs, the lugs are supported along the entire side of the metal cladding and therefore, the cladding does extend over (part way down) at least a portion of the cathode blade. It is then asserted that since the lugs are affixed to the electrically conductive metal cladding on the sides of the cladding, the cladding would inherently extend the support element to a position 30 to 40 mm above the metal, since the starter sheet would not be immersed up to that divergent area of the lugs connected to the cladding.

Borst et al does not disclose or suggest an electrically conductive metal cladding that extends downwardly from the support element onto both faces of the cathode blade itself, as now recited in claim 1 and 16. Borst et al has a blade extending over the top of the support element.

Borst et al fails to teach or suggest an electrically conductive cladding extending downwardly from the support element on both faces of the cathode blade. Borst et al therefore does not disclose or suggest all of the claim limitations of claims 1 and 16, as well as the claims dependent thereon,. Therefore Borst et al does not anticipate a cathode plate with a cathode blade at least partially covered on its both surfaces with metal cladding extending downward from the support element, as now recited in the present claims.

Reconsideration and withdrawal of this rejection based upon anticipation under 35 U.S.C. §102(b) over Borst et al is respectfully requested.

II. Conclusion

For at least all of the foregoing reasons, all grounds of objection and rejection have been overcome. Thus, a Notice of Allowance is respectfully requested.

Please charge any fee deficiency or credit any overpayment for this Amendment to Deposit Account No. 19-4375.

Respectfully submitted,

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